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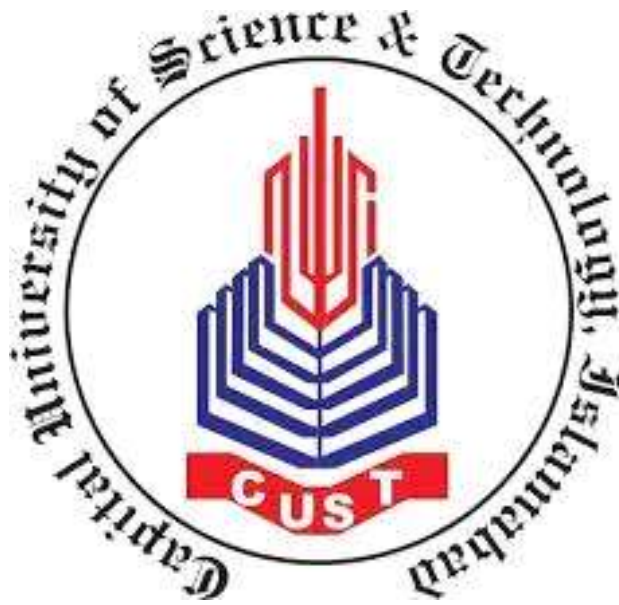

by

Ammara Tariq

BSP191024

A Research Thesis submitted to the
DEPARTMENT OF PSYCHOLOGY

In partial fulfillment of the requirements for the degree of
BACHELOR OF SCIENCE IN PSYCHOLOGY

Faculty of Management and Social Sciences
Capital University of Science & Technology,
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CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled "**Association between Academic Procrastination and Performance among university students.**" carried out by **Ammara Tariq Reg.No.BSP191024**, under the supervision of **Ms Rabia Batool**, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of **BS Psychology**.

Supervisor: _____

Ms Rabia Batool

Lecturer

Department of Psychology

Faculty of Management and Social Sciences

Capital University of Science & Technology, Islamabad

HoD: _____

Dr. Sabahat Haqqani

HoD

Department of Psychology, Faculty of Management and Social Sciences,

Capital University of Science & Technology, Islamabad

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Ammara Tariq

Registration # BSP191024

Approved By

Supervisor

Ms. Rabia Batool

Internal Examiner-I

Ms. Parveen Akhter

Internal Examiner-II

Ms. Mehreen Aftab

Thesis Coordinator
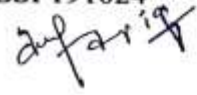
Ms. Irum Noureen

Head of Department

Dr. Sabahat Haqqani

DECLARATION

It is declared that this is an original piece of my own work, except where otherwise acknowledged in text and references. This work has not been submitted in any form for another degree or diploma at any university or other institution for tertiary education and shall not submitted by me in future for obtaining any degree from this or any other university or institution.

Ammara Tariq

BSP191024

January 2023

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DEDICATION

To my Supervisor

I dedicate this paper to my supervisor, who helped or guided me in each and every step of my research. I am very thankful to her fully supporting me throughout this journey and making it possible.

To my Parents

To my family, your unconditional love, support, and sacrifices make this dream possible.

To my Friends and Fellows

Who helped me a lot and was always available for me at any time, and tried to make my bad mood into good mood during research

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ABSTRACT

Academic procrastination arise when students' unessential delays the completion of tasks, assignments, projects or exam preparation and it is associated with poor academic performance, poor well-being, and increased anxiety and stress. This study investigated the academic procrastination to measure the domain active procrastination, peer influence and environmental factors predicting academic performance among university students. The sample selected for this study was 400 students. Convenient sampling was used to collect data. Data was collected by using questionnaires. Data analysis was done by using SPSS. Correlation used to explore relationship among variables. Descriptive analysis was be used to analyze demographic variables. Active procrastination scale measures four components of active procrastination: pressure preference, intentional decision to procrastinate, ability to meet deadlines, and outcome satisfaction. Peer influence is shown as one of the key social environmental factors influencing academic performance among the three factors examined including peer procrastination, peer influence and university exposure . The study of the data revealed a significant correlation with academic procrastination and academic performance. Current study also shows a non-significant relationship with gender of academic procrastination and academic performance. Among demographics, the results showed that frequency of females was higher. University was showed significant relationship with academic procrastination and academic performance. The limitation of study is data was not normally distributed.

Keywords: *Procrastination, Active procrastination, Academic performance, Peer Influence, Peer Procrastination, University exposure, University students.*

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LIST OF ABBREVIATIONS

APS   Active Procrastination Scale

PEF   Peers and Environmental Factors

Chapter 1 - Introduction

Procrastination

Many changes in student behavior and attitudes are expected in 21st century. The notion of procrastination, however, has persisted across time. Daily tasks like paying bills, doing laundry, or even responding to emails are regularly putt of by people for no apparent reason. These delays are relatively common in the general population (15-20%) and are referred to procrastination (Harriot & Ferrai, 1996). This variable is characterized by a pattern of behavior that frequently delays commencing tasks or delays their completion until the deadline (McCloskey, 2011). It is a dimension that affects various facets of people's lives, including the personal, social, professional, and intellectual situations. Positive and strong links exist between it and feelings of stress, anxiety, and depression (Ulgener et al, 2020). Due to its importance, it is essential to develop appropriate methods of measuring the construct in order to improve the construct's quality. Students in colleges frequently engages in procrastination, Prior studies (Balkis & Duru, 2009; Closson & Boultier, 2017, Steel 2007) have shown that it is more prevalent in students that in general population and affects students of all ages and educational levels (McCloskey & Scielzo, 2015).

Procrastination is the term for such delays, which occur frequently in the general population (15-20 percent; Harriot & Ferrari, 1996). Due to the fact that this variable is describes as a pattern of behavior marked by recurrent delays in starting or finishing tasks before the deadline (McCloskey, 2011). It is that dimension that influences multiple spheres of people's existence, including the personal, professional, social, academic and has positive and significant connections with symptoms of stress, anxiety, depression (Tice & Baucmeister, 2018), (Ulgener

et. al, 2020). A suitable way of measuring the construct must be found due to its significance if the construct it's to be made better.

Academic procrastination

The unique technique for procrastinating trends and this phenomenon which has very little research, is academic procrastination. Academic Procrastination occurs when students putt off finishing work, assignments, projects, or studying for exams for slight reasons. It is linked to poor academic achievement, poor well-being, and increased anxiety and stress. According to estimates, this practice affects between 50% and 90% of college and university students, and it is becoming more common (Chehrzad et al., 2017). According to researcher and practitioners, academic procrastination has a detrimental effect on student's academic success and well-being (Kim, Seo, 2015). Due to all of this, academic procrastination is becoming a rising area of scientific interest. According to research by Krause, people tend to putt off tasks more when they dislike them and are afraid of failing (Krause, 2014). Academic procrastination can be deliberate, accidently, or habitual, but it has huge impact on what student learn and how well they do academically. However, other academics (Morelli, 2008; Schmitt, 2008; Letham, 2004) have distinguished a number of procrastination types, including behavioral and spiritual procrastination, meta- cognitive procrastination as well as realistic, unrealistic, and spiritual procrastination, chore procrastination and dream procrastination. It doesn't matter what kind of procrastination a student engages in it lowers the performance by fostering carelessness, passivity, academic stagnation, and irresponsibility.

Academic procrastination is type of procrastination that occurs when attempting to complete formal academic work (Ferrari et. al, 1995). According to Pierce (Kail & Cavanaugh, 2019), people can cope when they have social support in the form of mentoring, emotional support, and psychological support. As a result, social assistance in the form of informational and

emotional support may help students cope when they face academic stress. According to Wistarini & Marheni's (2019) study, family social support has an effect on how stressed out students are about their studies. When it comes to reducing academic stress, students gain from social support from their families. Although procrastination was the first perceived as a problem with time management (Burden, 1981), further studies indicated that procrastination is as a psychological problem.

In academic procrastination there are two domains active procrastination and passive procrastination. In this study, active procrastination is the major concern. The majority of scholars have considered procrastination to be a form of self-regulatory failure associated with a string of determinal effects.(Beutel et al, 2016, Kim and Seo, 2015, Tice and Baumeister,1997). However, Chu and Choi's (2005) theory states that active procrastination is associated to favorable personal outcomes was found to be true (Habelrih & Hicks , 2015). Active Procrastination is a different kind of procrastination based on specific psychological traits. Its is described as a multidimensional concepts that combines the affective preference for time pressure, the cognitive intentional procrastination decision, the behavioral ability to meet deadlines and ability element of outcome satisfaction (Choi & Moran , 2009).

Academic Procrastination influenced by social environment in which peers and environmental factors can be explored in our study. Peer influence is an act of something choosing to do something they ordinarily wouldn't to order to gain the approval and admiration of their friends (Sarita and Dhayia, 2015). Due to the fact that students are constantly interacting with their peers and environment in both academic settings and outside of class, peers and the environment are thought to play a significant part in influencing academic procrastination

(Nordby et al., 2017). Peer pressure and social diversion are therefore particularly prevalent. In relation to procrastination, (Klingsieck et al, 2013) discovered a number of social antecedents.

First, they discovered that collaborating with others appears to reduce procrastination. Second, they claimed that the degree to which significant people see procrastination will have an impact on student's procrastination. Third, they understood that students often take by their role models, so if those role models postpone students may do the same behavior (Klingsieck et al, 2013).

There was very less research of Academic procrastination in public and private universities. The criteria of grading policies in public universities might differ from private universities. Activities related to education, particularly learning, are typically conducted at levels of formal education, one which is being higher education or universities. Several studies have found the opposite, that procrastination has no effect on individual academic performance, despite clear evidence that procrastination substantially impairs both quantity and quality of work. This study found that procrastination was caused by boredom on by lengthy semesters and tasks unrelated to academic requirements.

Due to inconsistent in research findings, gender differences in procrastination frequency have been one of most discussed issues. Some studies have been found no gender differences in procrastination (e.g. Hess, Sherman, & Goodman, 2000; Sirirn, 2011). Some authors have argued that females are more prone to procrastination e.g. Doyle & Paludi, 1998, Washington, 2004). The other group researcher reported that males are more likely to procrastinate (e.g. Özer et al. 2009; Steel, 2007; Steel & Ferrari, 2013). As, a recent large scale study conducted by Steel and Ferrari, 2013) confirmed that males are more procrastinate then females.

Academic performance

umerous empirical studies have examined the connection between procrastination and performance, particularly academic achievement. But the results have been unpredictable. Unstable health, bad self-image, a negative social impression, stress, and uneven professional performances are only a few of the negative affective, mental, and behavioral impacts of procrastination (Klingsieck et al, 2012; Levy & Ramim 2012; Sirios 2014). Academic

procrastination is frequently associated with dysfunctional learning outcomes for many students, such as low academic performance, poor quality academic work, a lack of information, time constraints, dropout, and a longer course of study (Ferrari 2010; Rice et al, 2012; Grunschel et al, 2013).

High-level academic procrastinators had greater difficulties succeeding online than low-level procrastinators did, according to Michinov et al, (2011). According to Klassen et al, (2008), high-level procrastinators had worse GPAs, anticipated and received lower class grades, waited longer to begin important assignments, and displayed less confidence in their ability to control their own learning. Additionally, they waited longer each day. High-level procrastination did have some success in the academic environment, while performing worse than low-level procrastinators such as negative repercussions on student's academic performance and subjective well-being, many researchers have looked into possible causes.

Literature Review

There may be cultural variances because the subject has been studied in several cultures (e.g, Brando-Garrido et al, 2020; Kim et al, 2017). East Asian students (Japanese, Taiwanese, and Hong Kong students) outperformed western students in terms of academic procrastination, according to research by Mann et al (i.e, U.S, Australian, and New Zealand students). Kokova et al. (2019) recently compared students test results. Students lack of dedication, lack of direction and encouragement, lack of management skills, emotional stress, social issues, overconfidence, and illness all appear to have an impact on procrastination. In terms of interpersonal connections, procrastination is linked to coping, with a poor correlation between academic success and course completion.

However, other factors such as low self-esteem, depression, loneliness, socially and personally imposed perfectionism may also be related to procrastination. Procrastination is common among students, impacting between 70 and 90 percent of them, according to studies

(Chehrzad et al, 2017). Academic procrastination is common in this environment and is characterized by inflexible behavior, confusion, and incomplete work. Procrastination is influenced by the of task at hand. For instance, research has found that jobs are challenging to manage their own learning process due to the excessive time and resource allocation.

When a person believes that the demands of the circumstance exceed their social and personal resources, they experience stress. When someone is under danger, weather actual or imagined, they suffer stress. The person must be kept safe. Stress can in some circumstances, be beneficial for people since it inspires them to conquer challenges and advance.

Theoretically, compared to the more traditional definition of procrastination, active procrastination varies in four key aspects. Secondly, a key component of Steel's operational definition of procrastination emphasises the illogical character of delaying learning tasks. Active procrastination, on the other hand, depends on a dileberate and well-thought-out decision to putt off learning tasks. Second, as stated by (Steel 2007), deliberate delay is thought to benefit and provide desirable results, whereas traditional procrastination is associated with negative outcomes (e.g, failure to complete assignments, inferior achievement). Finally, it is stated that active procrastinators feel inspired and pushed in the process of working towards their objective, in contrast to the negative emotions frequently associated with conventional procrastination (Sirois & Psychl, 2013). Active procrastinators are said to have motivation and challenge as they strive toward their objective (Chu & Choi, 2005). Hence, it is believed that active procrastination directly benefits the learner's motivation. Finally, both theories take conflicting stances on the need of self-regulation. In contrast to the lack of self-regulation frequently connected with traditional procrastination, Chowdhury and Pschyl (2008) demonstrated that active procrastination possesses characteristics of adaptive self-regulatory systems.

Numerous studies have shown a correlation between high levels of procrastination and poor academic performance (e.g, Ferrari & Scher, 2000; Hill, Chabot & Barrall, 1978; Rothblum, Solomon & Murakami, 1986;Schiming,2012, Senecal et al,1995;Tuckman, 1998), while others (e.g, Pychyl, Lee, Thibodeau, 2000) discovered no statistically significant difference in grades or test results between academic procrastinators and non-procrastinators.

Zarick and Stonebraker (2009) that students with lower average grades were much more likely to report submitting inadequate work, submitting assignments late, or receiving lower grades as a result of procrastination. They compared students with high average grades to students with low average grades. There is not much study connecting social factors to academic laziness. In their conceptual essay, Harris and Sutton (1983) suggest social norms as factor influencing procrastination in the context of business and organizations. Higher education norms that push students to start their work right away have been demonstrated to decrease academic procrastination (Ackerman & Gross, 2016). Additionally, stereotype risk has been linked to higher levels of procrastination among women (Deemer et al, 2014).

Senecal et al, 2003; Siroi Giguere, 2018); however , evidence from qualitative studies suggests that a lack of social of networks (Patrzek et al, 2012) or peer support can increase procrastination. When distracted from academic duties, peers appear to encourage procrastination (Schraw et al, 2007). Ackerman and Gross (2016) investigated social determinants and discovered that when social norms, such as the expectation that tasks be started on time, are followed, procrastination is less common. This was previously proposed in article (Harris & Sutton, 1983). Similarly, a qualitative study discovered that significant people's attitudes may influence procrastination (Klingsieck et al, 2013).

A nation's higher education system is a key indicator because it shows how society is growing and changing across the board. Governments have a difficult time ensuring that

university students meet minimum criteria of quality (Gonzalez-Zabala et al, 2017). Over the past few decades, significant changes have taken place in Latin America, including a rise in the population's demand for access to higher education, an increase in the number of universities, the emergence of new professions, and a rise in interest in the advancement of scholarly research (Vargas-Jimenez, 2016).

According to peer influence research, high levels of procrastination were preceded by peer distraction (Chen et al, 2016; Nordby et al, 2017; Senecal et al, 2003; Sirois & Giguere, 2018), stereotype threat (Deemer et al, 2014), a lack of social networks (Patrzek et al, 2012), or lack of peer support (Schraw et al,2007; Yang et al, 2021). These studies provide compelling evidence in support of the idea that factors unrelated to an individual's behavior can influence procrastination and, as a result, be used to reduce it. Group work with a significant contribution is a promising contender that has received little attention.

Theoretical framework

Poor performance, as well as physical and psychological well-being, has been linked to procrastination .However, while it is never a particularly beneficial behavior, the linked between it and performance is probably not as strong as most would expect. It effects on physical and psychological well-being may eventually lead to the need for professional help (Rozental & Carlbring, 2014). Procrastination is certainly an issue for a substantial percentage of students, and it has serious academic effects. Procrastination, according to evidence, leads to course with-drawl, lower marks, and dissatisfaction with college life (Semb, Glick, & Spencer, 1979, McCown, 1986). Furthermore, students do not appear to be able to overcome their procrastination problem with time.

The important constructs that aid in understanding the learning theory explanation of active procrastination, peer and environmental factors are escape and avoidance conditioning. When an individual is conditioned to flee from an aversive stimulus after it has been presented,

this is known as escape conditioning. When an individual is conditioned to completely avoid the aversive stimulus, academic work, and its reaction, anxiety, this is known as avoidance conditioning. According to leaning theory, anxiety-ridden students, for example, have been more reinforced to avoid academic task anxiety than the consequences of not completing the task (Soloman & Rothblum. 1984). The temporal relationship between a behavior's performance and its consequences is critical in learning theory. If the timing is incorrect, the consequences may or may not affect the behavior's future performance. A temporal construct, specific rewards refers to our proclivity to choose a pleasurable short-term goal over a delayed long-term goal (Ferrari et al., 1995). Instead of studying for a final exam, which could result in a good grade, a student may choose to attend a more enjoyable concert or party. Although the tenets of learning theory explain why procrastination may occur, they do not explain individual differences in procrastination sufficiently. Escape and avoidance, for example, may condition, but the conditioning is not strong enough to activate ubiquitous procrastination.

Rationale

Several studies have been conducted in Pakistan (Aziz & Tariq, 2013; Choudhry, 2008; Fatima, 2001), and Janssen (2015) investigated procrastination and its relationship to academic achievement in high school and undergraduate students. According to the findings, college students procrastinate significantly more than high school students. This study also highlighted the importance of taking students ages into account when investigating academic procrastination, and academic performance. Procrastination is a behavioral problem that many adults face on a daily basis, particularly when it comes to tasks that must be completed by a specific deadline (Oweini & Haraty, 2005).

Students are frequently given deadlines by university lectures by university lecturers and administrators to complete a variety of tasks, such as course registration, filling out course forms, and submitting homework or term papers (Popoola, 2005). Academically, students

frequently procrastinate by waiting until the last minute to submit papers or prepare for exams (Oweini & Haraty, 2005). The current study aims to investigate in academic procrastination, how active procrastination, peer influence, peer procrastination, exposure in university predicting academic performance among university students. Natural science and social sciences are the two major fields of study in Pakistani universities. Previous research has found some contradictory evidences of procrastination in academic settings for students from a variety of disciplines which is also being investigated in this study. (e.g, Beswick et al, 1988; Tice & Baureminder, 1997; Tuckman, 1998)

Objectives

- To explore association between academic procrastination and academic performance among university students

- To explore the effect of gender on academic procrastination and academic performance among university students

- To study the academic procrastination and academic performance of private and public universities

Hypothesis

- There would be significant relationship between academic procrastination and academic performance among university students.

- There would be a significant relationship between gender differences of academic procrastination and academic performance.

- There would be a significant relationship between public and private universities of academic procrastination and academic performance.

Chapter-2 Methodology

Research Design

This study was quantitative in nature. A convenient sampling method was used to acquire data. The study variable was measured by using Likert scales.

Sample and Sampling Strategy

The current study's sample size was 400 students. Participants were approached in Rawalpindi and Islamabad universities. The participants were chosen by using a convenient sampling method.

Sample Selection Criteria

Inclusion Criteria

- Male and female with age range of 18 – 25 years were included.

- Universities only from Islamabad / Rawalpindi were included.

Exclusion Criteria

- Students who do not understand English were not considered as part of study.

- Students of school and colleges excluded from the study.

Instruments

Active Procrastination Scale

The active procrastination scale was used to measure the academic procrastination. The scale comprised of two subscales that includes 1- Active procrastination scale and 2- passive procrastination scale. For the respective study, only active procrastination subscale was utilized

to measure the academic procrastination. Originally, this scale Choi and Moran (2009) attempted to broaden research on procrastination to include a different type of procrastination that is functional and results in desirable outcomes. This resulted in a16- item scale with adequate reliability .80. A wide range of psychological characteristics and correlates, including time use and perception and self-efficacy, motivational outcomes, stress-coping strategy, and personal outcomes. Choi and Moran (2009) proposed and validated an active procrastination scale in a sample of undergraduate college students, measuring four components of active procrastination: pressure preference, intentional decision to procrastinate, ability to meet deadlines, and outcome satisfaction. The scale is scored on a 7-point Likert scale, with responses ranging from 1 (not at all true) to 7 (very true).

Peer and Environmental factors (Nordby et al., 2017)

Peer and environmental factors investigated on a 5 point Likert scale, three instruments from Nord et al .,2017)'s study were used (1-strongly disagree, 5 strongly agree).The first was peer influence, which included six items that described how participants compared to others. These items assess a person's ability to regulate and change their behavior in relation to their peers. The mean score was computed by adding individual item scores and dividing them by total number of items on the scale. The greater the obtained score, the greater the influence of peers, Cronbach's alpha for this construct is .65, indicating moderately reliable. In the confirmatory factor analysis (CFA), this scale also shows acceptable goodness of fit, with CFI, RMSEA, and SRMR values of .961, .074, and.047, respectively (Nordby et al., 2017). The second category was peer procrastination, reverse order, two items are scored. The mean score was calculated by adding the individual scores of each item on the scale and then dividing the total number of items on the scale by the total number of items on the scale. A score indicates that peer procrastination is more.

Grade Point Average (GPA)

The cumulative GPA (a measure of academic performance) of each student was calculated using open-ended question that asked of their GPA in demographics which range from 0- 4. The grade point average was self-reported. Furthermore, for discriminant analysis, students' academic performance was classified as high GPA achievers with GPA 3 and above, where as those with GPA less than 3 were classified as less GPA. According to Kleijin et al. (1994), test competence refers to student's capacity to deal with and navigate the volume of course content required for exams. Also, it refers to challenges with organizing the study materials and getting ready for exams (Alvermann & Moore, 1991). Test competency is the characteristic that separates students with low and high GPAs, according to earlier research with pharmacy students (Sansgiry et al, 2006).

Procedure

The study was considered universities of Islamabad as sample. Questionnaire's which was used for data collection are; Active procrastination scale, Peer and environmental factors scale. Participants were recruited through distribution of questionnaires; the potential members were given data about the review, including an informed consent agreement. Demographic sheet was also being given to all participants. It consist of gender, age, education etc. It took almost everyone 25 to 30 minutes to complete the questionnaires. Even after completed the questionnaires, they were assure of confidentiality and provided the researcher's email address in case participants had any questions regarding the research. Permission to use the instruments gained through email conversation with various authors. For data collection convenience sampling was used. Permission was obtained from the respective heads of educational institutions. Finally, after the data have been completed, participants will be thanked for their valuable time and voluntary participation.

Statistical Analysis

For data analysis, IBM SPSS-21 (Statistical Package for the Social Sciences) was used. Bivariate Pearson correlation has been used to determine the correlation. Participant's demographic variable has also been examined by using descriptive statistics including frequencies, percentage, means, and standard deviations. In order to check reliability of scales, alpha coefficient was calculated. Independent sample t-test was used for gender analysis. Descriptive statistics was also calculated.

Ethical Consideration

The study was conducted under the supervision of thesis instructor. Consent taking and debriefing was done under ethical guidelines provided by American Psychological Association (APA). A consent form was formed as to obtain consent for participation in the study. It was warranted that participants have the freedom to leave the study at any time. Confidentiality of the participants was ensured by researcher.

Chapter 3- Results

The results are based on the adequacy of scales for the current sample. Descriptive statistics (Mean, Frequencies, and Percentages) were calculated to illustrate average scores of participants on major demographic characteristics. Mean, standard deviation (SD), alpha, reliabilities, skewness, and kurtosis were estimated to assess the perfection of study instruments. Mean differences and standard deviation (SD) t-test were calculated to analyze the role of gender.

Table 1

Descriptive analysis of demographic variables of study participants (N=400)

Variables	Categories	*f*	*%*
Gender			
	Male	156	39
	Female	244	61
Age			
	18	13	3.3
	19	41	10.3
	20	49	12.3
	21	91	22.8
	22	115	28.8
	23	69	17.3
	24	22	5.5
Socio economic status			
	Lower	-	-
	middle	395	98.8
	upper	5	1.3

Occupation

	Student	378	94.5
	Job	13	3.3
	Other	9	2.3

Ethnicity

	Punjabi	75	18.8
	Pakhtoon	29	7.3
	Kashmiri	46	11.5
	Sindhi	32	8.0
	Other	218	54.5

University

	Public	110	27.5
	Private	290	72.5

Education

	BS	396	99.0
	MS	4	1.0

Department

	Computer science	71	17.8
	BBA	75	18.8

	Bio-science	41	10.3
	D-pharmacy	40	10.0
	Soft-engineering	51	12.8
	Mechanical engineering	44	11.0
	English	19	4.8
Semester			
	2	50	12.5
	3	16	4.0
	4	31	7.8
	5	61	15.3
	6	59	14.8
	7	126	31.5
	8	57	14.3
GPA			
	0.1-2.0	18	5.0
	2.1-3.0	140	51.5
	3.1-4.0	242	80.7

Table 1 indicates the demographic variables and their frequencies and percentages. Demographic variables include age, gender, occupation, ethnicity, university, department, semester and GPA. According to above table, the result showed that females (244) with the percentage of 61% have high frequency then males (156) with the percentage of 39%. The results also showed that students of middle socioeconomic status have high frequency (395) with the percentage of 98.8% as compared to high socioeconomic status with the frequency (5) and the percentage 1.3%. Students of age range (22) have high frequency (115) with the percentage 28.8% as compared to other ranges. Students of age range between (18) have a frequency of (13) with percentage 3.3% considered as lowest frequency from other ranges.

Table (1) also described the ethnicity of Punjabi's have frequency (75) with 18.8% percentage. Student of ethnicity pashtoon have frequency (29) with 7.3% percentage. Ethnicity of Kashmiri's students have frequency (46) with 11.5% percentage. Sindhi students have frequency (32) with percentage 8.0% and other ethnicities have the frequency (218) with the percentage 54.5%.

The table also showed that students of private universities have high frequency (290) with the percentage of 72.5% as compared to public universities students with the frequency (110) and percentage is 27.5%. Bachelors students have high frequency (396) with the percentage 99.0% as contrast with master's students have frequency (4) with percentage 1.0%. Students whose occupation was only students have high frequency (378) with the percentage of 94.5% as compared with job students (13) with the percentage of 3.3%.

Students of semester 7 have high frequency (126) with the percentage of 31.5% as compared to the students of other semesters. Students with the department of BBA have a high frequency (75) with the percentage of 18.8% as compared to other departments. Students of computer science department have frequency (71) with percentage 17.8%, students of psychology

department have frequency (51) with percentage 14.8%, and students of bio-sciences department have frequency (41) with percentage 10.3%, D-pharmacy department of students have a frequency (40) with the percentage 10.0%, students of software-engineering department have frequency (51) and percentage 12.8%, students of mechanical-engineering department have frequency (44) and percentage 11.0%, and students of English department have a lowest frequency (19) with the percentage of 4.8% as compared to other departments. GPA score ranges between (3-4) have high frequency (242) with percentage 80.7% as compared with other score.

Table 2

Cronbach's Alpha Reliability Coefficients with Means and Standard Deviations of Active Procrastination Scale and Peer and Environmental Factors Scale, (N=400)

Scales	No. of item	Mean	SD	α	Skewness	Kurtosis
APS	16	64.4	11.41	.67	.79	.47
PEF	13	43.5	5.42	.47	.97	.56

Note: M=Mean score, SD= Standard Deviation, a= Cronbach's alpha value, APS= Active Procrastination, PEF= Peer Environmental Factors

Table 2 indicates the Cronbach's reliability coefficient for the overall active procrastination scale

(APS, *a* = .67), which was acceptable reliability and the other scale which was Peer and Environmental factors Scale (PEF, *a* = .47) which was shown moderate reliability.

Table 3

Inter-correlation for Association between Academic Procrastination and Academic Performance among university students (N=400)

Sr.	Variables	Mean	SD	1	2	3
1	APS	64.4	11.4	-	-.243**	.104*
2	PEF	44.1	6.0		-	.04
3	GPA	2.9	.5			-

*Note *p< .05, **p< .01*

APS= Active Procrastination Scale, PEF= PI=Peer Influence, PP= Peer Procrastination, UE= University Exposure, GPA=Grade point average, M=Mean, SD=Standard deviation

Table 2, indicates the is significant relationship between academic procrastination and academic performance (r=.24, N=400, p>0.01). This entails that increase in the level of academic procrastination will lead to increase in academic performance. Peers and environmental factors was non-significant relationship with grade point average (GPA).

GPA was significantly correlated with active procrastination and showed non-significant relationship with peers and environmental factors.

Table 4

Independent sample t-test (Gender) N=400

Variables	Male		Female		t	p	95% C.I		Cohen's d
	Mean	**SD**	**Mean**	**SD**			**Upper**	**Lower**	
APS	64.5	12.5	64.3	10.6	.10	.91	-2.1	2.4	.01
PEF	44.3	6.9	43.9	5.4	.63	.52	-.82	1.61	.06
GPA	2.7	.56	3.0	.53	-.6.1	.00	-.45	.23	.55

Note: APS=Active Procrastination Scale, PEF= Peers and Environmental Factors, GPA=Grade Point Average

Table 4 showed independent sample t-test. For the active procrastination scale, the mean value of males was 64.5, the standard deviation was 12.5. While the mean value for females 64.3 and standard deviation was 10.6. The value of t was .10 and the value of p was .91. The effect size for active procrastination scale was .01.

For Peer and Environmental factors scale, the mean value of males was 44.3, the standard deviation was 6.9. While the mean value for females 43.9 and standard deviation was 5.4. The value of t was .63 and the value of p was .52. The effect size for peer and environmental factors scale was .06.

The Grade point average of mean value was 2.7 and standard deviation .56 was in males. While the mean value for females 3.0 and standard deviation was .53. The value of t was -6.1 and the value of p was .00. The effect size for grade point average was 0.55.

Table 5

Independent sample t-test (University) N=400

Variables	Public		Private		*t*	*p*	Confidence Interval 95%		Cohen's d
	M	**SD**	**M**	**SD**			**Lower**	**Upper**	
APS	66.3	10.7	63.7	11.5	2.06	*.03*	.1	5	0.2
PEF	43.5	5.5	44.3	6.2	-1.19	*.23*	-2	.5	0.1

Note: APS= Active Procrastination Scale, PEF= Peer Environmental Factors, M=Mean, SD=Standard deviation.

Table 5 showed that independent sample t-test values of private and public universities influence on psychological and social predictors of academic procrastination. For the active procrastination scale, the mean value of public sector was 66.3, the standard deviation was 10.7. While mean value for private sector was 63.7 and standard deviation was 11.5. The value of t was 2.06 and the value of p was .03. A lower value of the active procrastination scale was .1 while upper value was 5. The effect size for active procrastination scale was 0.2. For Peers and Environmental factors of Academic procrastination, the mean value of public sector 43.5 and standard deviation was 5.5. For private sector, the mean value was 44.3 and standard deviation was 6.2. The value of t was -1.19 and value of p was .23. A lower value for peer and environmental factors was -2 and upper value was .5. The effect size value was 0.1

Chapter – 4 Discussion

The purpose of study was to explore the association between academic procrastination and academic performance among university students. Further, in academic procrastination, active procrastination, peers and environmental factors was explored. This research also aims to explore differences of academic procrastination and academic performance along with demographic variables. For this purpose in a sample of undergraduate college students, Choi & Moran (2009) proposed and validated an active procrastination scale that assessed four aspects of the behavior: a preference for pressure, an intentional choice to put off completing an assignment until later, the capacity to meet deadlines, and satisfaction with the results. The reliability of scale was checked by calculating Cronbach's alpha reliability (see Table 2).

Hypothesis one proposed that there will be significant relationship between academic procrastination and academic performance. In table 3, correlational analysis of data revealed a significant relationship between academic procrastination and academic performance. Thus, hypothesis one is largely supportive. According with previous literature (such as Seo, 2011; Solomon & Rothblum, 1984) found positive correlation between academic procrastination and performance.

Hypothesis two proposed that there is significant relationship between gender differences of academic procrastination and academic performance. In table 4, t-test showed a gender differences have found inconsistent results in various researches (e.g. Hess, Sherman, & Goodman, 2000; Sirirn, 2011). Consequently, findings of current study showed that males are more procrastinate then females.

According to hypothesis three university was found significantly related with academic procrastination and academic performance. The findings reveal that there is significant relationship between public and private universities on academic procrastination and performance.

Similarly, GPA was positively related to academic procrastination. The present findings reveal that male's students who score high on academic procrastination report poor academic performance. Students who scored GPA above 3 was prone to less procrastinate and students who scored GPA less than 3 more procrastinate.

Conclusion

As a whole it is concluded that our result showed a significant relationship between active procrastination predicting academic performance but non-significant relationship between peer procrastination, peer influence and university exposure among university students.

Limitations

The study sample does not showed generalizable findings. This research is specifically for university students. Another limitation is the cross-sectional study design. Therefore, longitudinal studies recommended for deducing cause and effect from their results.

Implications and Suggestions for follow up studies

Like other scientific studies, current study has also some implication and suggestions. Following considerations should be kept in mind in future researches. One significant implication for future studies was that sample should normally distributed for significant findings. Another implication was data should collect from other regions for generalizability of results.

- Future research should look into the benefits of procrastination. As a result, future research should investigate the current scale applicability in different populations. It is critical to investigate the effects in more realistic settings, such as field experiment.

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Report

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APPENDICES

Appendix A – Support Letter

C.U.S.T.

Capital University of Science & Technology

Islamabad

Islamabad Expressway, Kahuta Road,
Zone - V, Islamabad, Pakistan
Telephone   +92-51-111-555-666
                  +92-51-4486700
Fax   +92-51-4486705
Email   info@cust.edu.pk
Website   www.cust.edu.pk

Ref. CUST/IBD/PSY/Thesis-198
October 17, 2022

TO WHOM IT MAY CONCERN

Capital University of Science and Technology (CUST) is a federally chartered university. The university is authorized by the Federal Government to award degrees at Bachelor's, Master's and Doctorate level for a wide variety of programs.

Ms. Ammara Tariq, registration number **BSP191024** is a bona fide student in BS Psychology program at this University from Spring 2019 till date. In partial fulfillment of the degree, she is conducting research on "Relationship between Academic Procrastination and Academic Performance among University Students". She is required to collect data from your institute.

Your cooperation is highly appreciated. Please feel free to contact undersigned, if you have any query in this regard.

Best Wishes,

Dr. Sabahat Haqqani
Head, Department of Psychology
Ph no. 111-555-666 Ext: 178
sabahat.haqqani@cust.edu.pk

Appendix B- Informed Consent

I am a student of BS Psychology at Capital University of science and technology, Islamabad. You are invited to participate in this study. The purpose of this study is to explore when and why people procrastinate in academic settings and how they feel about procrastinating. Your participation in this research is completely voluntary, and you shall have the right to discontinue at any time. Your identity will be kept confidential and data will only be used for research purposes. If you have any query you can contact at this email.

(tariqammara769@gmail.com)

Thank You.

Participant's Signature:

_____

Appendix C - Demographic Sheet

Gender: Male/Female/Other

Age: _____

Ethnicity: _____

Socio-economic Status: Lower class/ Middle class/ Upper class

Occupation: _____

University: Public/Private

Education: BS/ MS

Department: _____

Semester: _____

GPA: _____

Appendix D- Active procrastination scale

On the following pages you will find a series of statements which people may use to

Describe themselves. Read each statement and decide whether or not it describes you.

Scored on a 7-point Likert scale where 1= Not at all true and 7= Very true.

1. My performance tends to suffer when I have to race against deadlines*

2. I don't do well if I have to rush through a task*

3. If I put things off until the last moment, I'm not satisfied with their outcomes*

4. I achieve better results if I complete a task at a slower pace, well ahead of a deadline*

5. It's really a pain for me to work under upcoming deadlines*

6. I'm upset and reluctant to act when I'm forced to work under pressure*

7. I feel tense and cannot concentrate when there's too much time pressure on me*

8. I'm frustrated when I have to rush to meet deadlines*

9. To use my time more efficiently, I deliberately postpone some tasks

10. I intentionally put off work to maximize my motivation

11. In order to make better use of my time, I intentionally put off some tasks

12. I finish most of my assignments right before deadlines because I choose to do so

13. I often start things at the last minute and find it difficult to complete them on time*

14. I often fail to accomplish goals that I set for myself*

15. I'm often running late when getting things done*

16. I have difficulty finishing activities once I start them*

* Indicates reverse-scored items

Appendix E- Peer and Environmental factors (Nordby et al., 2017)

How much do you agree with the following statements? (Scored on a 1 to 5 Likert type

scale, with 1= Strongly Disagree and 5= Strongly Agree)

Peer procrastination

1. There is a culture among my fellow students to delay exams-reading and starting writing assignments.

2. My fellow students rarely delay schoolwork. *

3. Many of my fellow students are relaxed about their schoolwork.

4. There is a culture among my fellow students to get started early and finish early with schoolwork. *

Peer influence
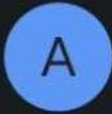
1. When I am late with my schoolwork, I find it reassuring that other students are also behind on their work.

2. When other students around me delay working on their schoolwork, it gets easier for me to delay as well.

3. I work more on my schoolwork when I know my fellow students are working as well.

4. I envy those students who get started early on their exams-reading and written assignments.

5. I work harder when I know I am behind my fellow students on schoolwork.

6. I try to work as much as my fellow students do with their schoolwork.

Exposure in university

1. I spend a lot of time at the university.

2. I work a lot of schoolwork together with my fellow students.

3. I often socialize with my fellow students.

* Indicates reverse-scored item

Appendix-F- Scale permission

Ammara Tariq 19/10/2022
Dear Choi!I am Ammara Tariq, a psychology student in the 8th semester of the capital

Jin Nam Choi (최진... 20/10/2022
to me, rabia.batool

Hi,

Thanks for your interest in my work.

Attached please find some documents as regards the APS.

For scoring, you can just average the responses to the items (but just be careful with the reverse-coded items).

I wish the best of luck to your thesis.

Best regards,

Jin Nam CHOI, Ph.D.

Professor of OB/HRM

Graduate School of Business

Seoul National University

1 Gwanak-ro, Gwanak-gu

Seoul, 08826, South Korea

Office: 82-2-880-2527

Email: jnchoi@snu.ac.kr

Kent
Active 3 hours ago

psychology student in the 8th s...

Dear Kent Nordby
I am Ammara Tariq, a psychology student in the 8th semester of the capital university of science and technology (C.U.S.T), Islamabad, Pakistan. It is my final year and I am working on my research thesis (Association between Predictors of Academic Procrastination and Academic Performance among University Students). I found your scale Peer and Environmental factors (Nordby et al., 2017) which I need for conducting my research thesis, and as my sample is students. With all humbleness, I request you to share the scale with me. I will be very thankful for this act. I am looking forward to your valuable response. Thank you!

7 OCT AT 14:15

Oi! Hello! I'm sorry for not replying earlier, I did not see your message!

You can now call each other and see information such as Active Status and when you've read messages.

Kent
Active 3 hours ago

7 OCT AT 14:15

Oi! Hello! I'm sorry for not replying earlier, I did not see your message!

You can now call each other and see information such as Active Status and when you've read messages.

For sure I can give you the scale, but the scale will also be in the appendix of the article also i believe 😅

I'm currently out travelling, but I'll try to help you when I can.

8 OCT AT 01:06

↩ You replied to Kent

Oi! Hello! I'm sorry for not replying earlier, I did not see your message!

It's ok no problem at all

↩ You replied to Kent

For sure I can give you the scale, but the scale will also be in the appendix of the article also i be...

Yes I have the scale I just want a permission from you

↩ You replied to Kent